From: Lefer, Barry L. (HQ-DK000)

To: Gray, David; Michael Honeycutt

Subject: More information about the proposed DC-8 flight over Southeastern TX for Thursday September 14th

Date: Sunday, September 10, 2017 10:50:47 AM
Attachments: Houston revb draft 20170909.pdf

David and Michael.

I wanted to reach out to you to provide you with as much information that you need regarding the proposed NASA DC-8 flight over southeastern Texas scheduled for Thursday, September 14<sup>th</sup>.

The NASA Atmospheric Tomography mission is preparing for a Pole-to-Pole sampling of background atmospheric composition, and the first test flight is scheduled for Thursday, September 14<sup>th</sup>. The science team thought that it could be interesting scientifically to sample the atmosphere of southeastern Texas as the region is recovering from Hurricane Harvey. The instrument payload (see <a href="https://espo.nasa.gov/home/atom/instruments">https://espo.nasa.gov/home/atom/instruments</a>) is not optimized for urban sampling, rather, for the opposite). Nevertheless, it could provide an interesting snapshot of the current conditions.

Attached is additional information, including our flight track and flight plans. We would like to work with EPA and TCEQ to provide both of you with the most useful data possible for your missions. From the NASA point of view, I want to stress two points regarding this effort:

- **1. The design of this flight is regional in scope.** The overall goal is to assess the photochemical reactivity of the atmosphere and compare to the many earlier flights/campaigns in this region. The payload has superb capabilities for looking at the second stage products of photochemical pollution formaldehyde, peroxides, nitrates -- and the radical drivers (NOx, HOx). We can assess if large changes have followed the disaster. Small changes cannot be assessed this way.
- **2.** The ATom DC-8 will not (firstly, because it is not able to) sample emissions from facilities in any effective way. All our VOC observations are time averaged (flasks; on-board GCs). Facility emissions are not the focus of the flight that we have planned. We should not in any way duplicate or interfere with Texas data collection or dissemination of information, as far as I can tell.

I will be available Sunday night, all-day Monday and all-day Tuesday. Please contact me via email or phone and I would be happy to work with you to answer your questions and try to address any concerns.

Best regards. Sincerely, Barry

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